

Claims

1. Arrangement with
  - at least one substrate (1, 1'),
  - at least one electrical component (2, 2') arranged on a surface section (11) of the substrate with an electrical contact surface (21, 21') and
  - at least one electrical contact lug (3) with an electrical connection surface (32) for electrical contacting of the contact surface (21, 21') of the component (2, 2'), whereby
  - the connection surface (32) of the contact lug (3) and the contact surface (21) of the component (2) are connected to each other such that there is an area (33) of the contact lug (3) which protrudes beyond the contact surface (21) of the component.,  
characterized in that
  - the contact lug (3) features at least one electrically-conductive film (30) and
  - the electrically-conductive film (30) features the electrical connection surface (32) of the contact lug (3).
2. Arrangement according to claim 1, with the electrically-conductive film of a laminated interconnect (36) featuring at least two electrical conductor layers (31, 31') and at least one electrical insulation layer (35) arranged between the conductor layers (31, 31').
3. Arrangement in accordance with claim 1 or 2, with the conductor layers (31, 31') and the insulation layer (35) of the laminated interconnect (36) being designed and arranged in relation to each other such that through electrical activation of the conductor layers a magnetic field can be created in each case so that the magnetic fields mutually weaken each other.

4. Arrangement according to claim 3, with the electrical conductor layers (31, 31') of the laminated interconnect (36) being essentially in a coplanar arrangement to each other.
5. Arrangement in accordance with one of the claims 1 to 4, with the component being a semiconductor chip and especially a power semiconductor chip..
6. Method of producing an arrangement in accordance with the previous claims, with the following steps:
  - a) Provision of a substrate with an electrical component with an electrical contact surface and
  - b) Creation of the electrical contacting by bringing together the contact surface of the component and connection surface of the electrically-conductive film of the contact lug such that an area of the electrically-conductive film of the contact lug is produced which protrudes at least beyond the contact surface of the component.
7. Method in accordance with claim 6, in which, to bring together the contact surface of the component and connection surface of the electrically-conductive film one of the methods selected from the group of connection methods soldering and/or welding and/or gluing is performed.
8. Method in accordance with claim 6 or 7, in which an electrically-conductive film with a laminated interconnect with at least one electrical insulation layer and at least one electrical conductor layer is used to form the connection surface of the electrically-conductive film.
9. Method in accordance with one of the claims 6 to 8, in which, to provide the substrate with the electrical component the electrical contact surface of the component

is created with the following further steps:

- c) Applying an electrical insulating film to the substrate and the component and
- d) Creating a window in the insulating film, which reveals the contact surface of the component.

10. Method according to claim 9, in which, to apply the insulating film, the film is laminated on in a vacuum.

11. Method in accordance with claim 9 or 10, in which the insulating film applied is used as the insulating layer of the laminated interconnect of the electrically-conductive film.

12. Method in accordance with one of the claims 9 to 11, in which, to form the electrical conductor layer of the laminated interconnect, electrically-conductive material is applied to the insulating film before and/or after the application of the insulating film.

13. Method in accordance with one of the claims 9 to 12, in which the insulating film is applied to the component in such a way that an area of the insulating film which at least protrudes over the contact surface of the component is created.

14. Method in accordance with one of the claims 9 to 13, with an insulating film with a plastic material based on polyamide, polyethylene, polyphenol, polyether-etherketone and/or on epoxy being used.

15. Method in accordance with one of the claims 9 to 14, in which an insulating film with film thickness of 25 to 150  $\mu\text{m}$  is used.

16. Method in accordance with one of the claims 9 to 15, with a tempering step being performed after the insulating film

has been applied.

17. Method in accordance with one of the claims 9 to 16, with the application being repeated until such times as a specific film thickness of the applied insulating film is reached.
18. Method in accordance with one of the claims 9 to 14, in which, to create the window in the insulating film, material of the insulating film is removed by laser ablation.
19. Method in accordance with one of the claims 9 to 14, in which a photo-sensitive insulating film is used, and to create the window in the insulating film a photo-lithographic process is performed.
20. Method in accordance with one of the previous claims, with an electrically-conductive film with a laminated interconnect insulation layer and a conductor layer being used, with the conductor layer featuring a number of sublayers arranged one above the other made from different, electrically-conductive film.
21. Method in accordance with one of the previous claims, with, for the production of the multi-layer arrangement, the steps application of the insulating film, creation of the window in the insulating film and/or creation of the electrical contacting are performed a number of times.